

WHAT IS CLAIMED IS:

1. An image data processing method for making it possible to read image data acquired by different types of image data acquisition means and processing the read image data so as to provide an optimum output result, said image data processing method comprising the steps of:

presetting image data processing contents considering processing operation characteristics of the image data acquisition means assigned the identification information in response to identification information assigned for identifying the different types of image data acquisition means;

reading the image data provided by one image data acquisition means as image data to be processed;

determining which image data acquisition means the image data to be processed is acquired by according to the identification information;

selecting the image data processing contents corresponding to the determination result in response thereto; and

processing the image data to be processed so as to provide the optimum output result in accordance with the selected image data processing contents.

2. The image data processing method as claimed in claim 1, wherein the identification information assigned for identifying the different types of image data acquisition means is model names

4 assigned to the image data acquisition means.

1 3. The image data processing method as claimed in claim 1,
2 wherein the image data processing contents are at least one of image
3 correction processing contents for making a correction to an image
A 4 and image scaling processing contents for enlarging ^{or} and reducing
5 an image,

6 wherein the image correction processing contents include
7 color correction processing, brightness correction processing,
8 contrast correction processing, color saturation correction
9 processing, noise removal processing, smoothing processing, and
10 contour correction processing, at least one correction processing
11 of which is performed, and

12 wherein the image scaling processing contents are to perform
13 image scaling processing set based on a resolution of the image
14 data acquisition means.

1 4. The image data processing method as claimed in claim 3,
2 wherein the image data to be processed is image data on a record
3 medium recording the image data acquired by the image data
4 acquisition means and

5 wherein the identification information is information
6 existing together with the image data recorded on the record medium.

1 5. The image data processing method as claimed in claim 3,
2 wherein the image data to be processed is image data transferred
3 through communication means from the image data acquisition means
4 and

5 wherein the identification information is information
6 existing together with the image data transferred through the
7 communication means.

8.3 C } 1 6. An image data print apparatus for making it possible to read
2 image data acquired by different types of image data acquisition
3 means, processing the read image data so as to provide an optimum
4 output result, and printing the processed image data, said image
5 data print apparatus comprising:

6 an image data read section capable of reading image data
7 acquired by different types of image data acquisition means as image
8 data to be processed;

9 a model determination section for determining which image
10 data acquisition means the image data acquisition means is from
11 identification information assigned for identifying the different
12 types of image data acquisition means;

13 an image data processing content storage section for storing
14 image data processing contents considering the processing
15 operation characteristics of the image data acquisition means
16 assigned the identification information in response to the
17 identification information assigned for identifying the different

18 types of image data acquisition means;

19 an image data processing section for receiving the
20 determination result from said model determination section,
21 selecting the image data processing contents corresponding to the
22 determination result out of said image data processing content
23 storage section, and executing the image data processing contents;
24 and

25 a print processing section for performing print processing
26 of the image data processed by said image data processing section.

1 7. The image data print apparatus as claimed in claim 6, wherein
2 the identification information assigned for identifying the
3 different types of image data acquisition means is model names
4 assigned to the image data acquisition means.

1 8. The image data print apparatus as claimed in claim 6, wherein
2 the image data processing contents executed by said image data
3 processing section are at least one of image correction processing
4 contents for making a correction to an image and image scaling
5 processing contents for enlarging ^{or} and reducing an image,

6 wherein the image correction processing contents include
7 color correction processing, brightness correction processing,
8 contrast correction processing, color saturation correction
9 processing, noise removal processing, smoothing processing, and
10 contour correction processing, at least one correction processing

11 of which is performed, and

12 wherein the image scaling processing contents are to perform
13 image scaling processing set based on a resolution of the image
14 data acquisition means.

1 9. The image data print apparatus as claimed in claim 8, wherein
2 the image data to be processed, read by said image data read section
3 is image data on a record medium recording the image data acquired
4 by the image data acquisition means and

5 wherein the identification information is information
6 existing together with the image data on the record medium.

1 10. The image data print apparatus as claimed in claim 8, wherein
2 the image data to be processed, read by said image data read section
3 is image data transferred through communication means from the
4 image data acquisition means and wherein the identification
5 information is information existing together with the image data
6 transferred through the communication means.

5.1(1) 1 11. A record medium recording an image data processing program
2 for making it possible to read image data acquired by different
3 types of image data acquisition means, processing the read image
4 data so as to provide an optimum output result, and printing the
5 processed image data, said image data processing program comprising
6 the steps of:

reading image data acquired by one image data acquisition
means as image data to be processed;

determining which image data acquisition means the image data acquisition means is from identification information assigned for identifying the different types of image data acquisition means; and

receiving the determination result as to which image data acquisition means the image data acquisition means is, selecting the image data processing contents considering the processing operation characteristics of the image data acquisition means, and performing image data processing responsive to the image data processing contents.

12. The record medium recording the image data processing program as claimed in claim 11, wherein the identification information assigned for identifying the different types of image data acquisition means is model names assigned to the image data acquisition means.

13. The record medium recording the image data processing program as claimed in claim 11, wherein the image data processing contents are at least either of image correction processing contents for making a correction to an image and image scaling processing contents for enlarging or reducing an image, and

wherein the image correction processing contents include

7 color correction processing, brightness correction processing,
8 contrast correction processing, color saturation correction
9 processing, noise removal processing, smoothing processing, and
10 contour correction processing, at least one correction processing
11 of which is performed, and

12 wherein the image scaling processing contents are to perform
13 image scaling processing set based on a resolution of the image
14 data acquisition means.

1 14. The record medium recording the image data processing program
2 as claimed in claim 13, wherein the image data to be processed is
3 image data on a record medium recording the image data acquired
4 by the image data acquisition means and

5 wherein the identification information is information
6 existing together with the image data recorded on the record medium.

1 15. The record medium recording the image data processing program
2 as claimed in claim 13, wherein the image data to be processed is
3 image data transferred through communication means from the image
4 data acquisition means and

5 wherein the identification information is information
6 existing together with the image data transferred through the
7 communication means.

FIG. 3

S1 READ IMAGE DATA FILE

S2 ACQUIRE MODEL NAME

S3 DETERMINE MODEL

5 S4 PERFORM PROCESSING BASED ON IMAGE DATA PROCESSING CONTENTS
CORRESPONDING TO MODEL A

S5 PERFORM PROCESSING BASED ON IMAGE DATA PROCESSING CONTENTS
CORRESPONDING TO MODEL B

10 S6 PERFORM PROCESSING BASED ON IMAGE DATA PROCESSING CONTENTS
CORRESPONDING TO MODEL C

S7 PERFORM PRINT PROCESSING

FIG. 4A

(MODEL A)

S41 PERFORM EDGE ENHANCEMENT PROCESSING

15 S42 COLOR SATURATION = COLOR SATURATION +5

S43 SELECT BI CUBIC GENERAL AS RESIZING METHOD

S44 RESIZE

TO PRINT PROCESSING

FIG. 4B

20 (MODEL B)

S51 BRIGHTNESS = BRIGHTNESS +10

S52 CONTRAST = CONTRAST +7

S53 SELECT ALGORITHM FOR MODEL B AS RESIZING METHOD

S54 RESIZE

25 TO PRINT PROCESSING

Figure 1 consists of 12 histograms arranged in a 6x2 grid. The columns are labeled 'n=10' and 'n=20'. The rows are labeled 'k=1', 'k=2', 'k=3', 'k=4', 'k=5', and 'k=6'. The x-axis for all histograms is 'Number of non-zero elements' ranging from 0 to 100. The y-axis is 'Frequency' ranging from 0 to 100. As n increases, the distribution becomes more spread out. As k increases, the distribution becomes more concentrated around zero.

Figure 1 consists of 12 histograms arranged in a 6x2 grid. The columns are labeled 'n=10' and 'n=20'. The rows are labeled 'k=1', 'k=2', 'k=3', 'k=4', 'k=5', and 'k=6'. The x-axis for all histograms is 'Number of non-zero elements' ranging from 0 to 100. The y-axis is 'Frequency' ranging from 0 to 100. As n increases, the distribution becomes more spread out. As k increases, the distribution becomes more concentrated around zero.

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